

AMENDMENTS TO THE CLAIMS

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1. (original): A transmission for a hybrid electric vehicle comprising:
an input shaft with a main transmission fluid pump drivingly connected thereto;
an electronically controlled hydraulic shift system;
a low-reverse clutch and a forward clutch connected to the hydraulic shift system;
an electronically driven fluid pump; and
a shut down shuttle valve operatively engaging the electrically driven fluid pump, the low/reverse clutch and the forward clutch and switchable to selectively engage and disengage the electronically driven pump from the hydraulic shift system.

2. (original): The transmission of claim 1 further including a forward-reverse solenoid and a forward-reverse shuttle, and the shut down shuttle has a first position where the forward-reverse solenoid and forward reverse shuttle are exposed to fluid pressure from the main transmission fluid pump and a second position where the forward-reverse solenoid and forward-reverse shuttle are exposed to fluid pressure from the electronically driven fluid pump.

3. (original): The transmission of claim 2 wherein the shut down shuttle is shiftable from the first position to the second position when the fluid pressure produced by the electronically driven fluid pump exceeds the fluid pressure produced by the main transmission fluid pump.

4. (original): The transmission of claim 3 wherein the shut down shuttle is shiftable from the second position to the first position when the fluid pressure produced by the electronically driven fluid pump is less than the fluid pressure produced by the main transmission fluid pump.

5. (original): The transmission of claim 4 wherein the electrically driven pump includes a fluid output and wherein the transmission further includes a pressure transducer operatively engaging the fluid output.

6. (original): The transmission of claim 2 wherein the shut down shuttle is shiftable from the second position to the first position when the fluid pressure produced by the electronically driven fluid pump is less than the fluid pressure produced by the main transmission fluid pump.

7. (original): The transmission of claim 1 wherein the electrically driven pump includes a fluid output and wherein the transmission further includes a pressure transducer operatively engaging the fluid output.

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cont
8. (original): The transmission of claim 7 further including a second pressure transducer operatively engaging the forward clutch.

9. (original): The transmission of claim 7 further including a controller in communication with the pressure transducer, and a solid state relay electronically connected to and drivable by the controller, and with the electronically driven pump electronically connected to and drivable by the solid state relay.

10. (original): A hybrid powertrain for a vehicle comprising:
an internal combustion engine;
a traction motor drivingly connected to the engine; and
a transmission having an input shaft, with a main transmission fluid pump drivingly connected thereto, and an electronically controlled hydraulic shift system, and including a low-reverse clutch and a forward clutch connected to the hydraulic shift system, and with an electronically driven fluid pump, and with a shut down shuttle valve operatively engaging the electrically driven fluid pump, the low/reverse clutch and the forward clutch and switchable to selectively engage and disengage the electronically driven pump from the hydraulic shift system.

11. (original): The hybrid powertrain of claim 10 further including a forward-reverse solenoid and a forward-reverse shuttle, and the shut down shuttle has a first position where the forward-r verse solenoid and forward reverse shuttle are exposed to fluid pressure from

the main transmission fluid pump and a second position where the forward-reverse solenoid and forward-reverse shuttle are exposed to fluid pressure from the electronically driven fluid pump.

12. (original): The hybrid powertrain of claim 11 wherein the shut down shuttle is shiftable from the first position to the second position when the fluid pressure produced by the electronically driven fluid pump exceeds the fluid pressure produced by the main transmission fluid pump.

Alt
13. (original): The hybrid powertrain of claim 10 wherein the electrically driven pump includes a fluid output and wherein the transmission further includes a pressure transducer operatively engaging the fluid output.

14. (original): The hybrid powertrain of claim 13 further including a controller in communication with the pressure transducer, and a solid state relay electronically connected to and drivable by the controller, and with the electronically driven pump electronically connected to and drivable by the solid state relay.

15. (canceled)

16. (canceled)

17. (canceled)

18. (canceled)

19. (canceled)

20. (canceled)